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ABSTRACT

This document summarizes evidence of the effectiveness of protocol materials in the improvement of teaching. A secondary objective is to place this evaluation in the context of a brief review of protocol materials as an educational innovation, including also its genesis, purpose, problems, and recommendations for the future. The author then reviews the evidence at his disposal, dividing his findings into three sections: a) evidence of changed teacher behavior; b) evidence of concept acquisition; and c) evidence of reaction to the materials. A summary of the findings indicates that: a) no attempt has been made as yet to discover the influence, if any, on the behavior of pupils (probably because most studies are funded for only one year); b) one study reveals the effect of protocols on favorable change of teaching behavior; c) positive results have been obtained on the acquisition of concepts by preservice and in-service teachers; and d) there is evidence of reaction of both trainees and their teachers to the technical quality and relevance of protocol materials. Included are four recommendations pertaining to future evaluations of protocol materials and listings of protocol materials cited in the study and materials reviewed but not applicable to the study. (JA)

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A SURVEY OF

PROTOCOL MATERIALS EVALUATION

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TABLE OF CONTENTS

A Brief History of Protocol Materials 1

Statement of the Problem 3

Limitations of Past Evaluations 3

Methods Analysis 4

Findings:

Evidence of Changed Teacher Behavior 7

Evidence of Concept Acquisitions 8

Evidence of Reactions to the Materials 11

Evidence of Demand fpr the Materials 12

Summary of the Findings and Recommendations 12

References 15

Appendix A Protocol Materials Evaluation Exhibit Inventory . . 17

Appendix B Materials Reviewed but not Applicable to this Study 22

A BRIEF HISTORY OF PROTOCOL MATERIALS

There is no shortage of instructional materials in teacher education. Even a cursory review of Books in Print, recent publications announced by book companies, and audiovisual catalogs will impress the reader with the prolificacy of producers of instructional materials for teacher education. Probing beyond the facts of volume productions, however, will reveal most of these materials are informational in nature (Gliessman, 1972). They address subject matter such as educational anthropology and child development, methodology, e.g., reading instruction and pupil control, concepts such as transfer of learning and motivation, operations like constructing a sociogram or finding the median, and educational issues such as federal aid to parochial schools and national testing.

While there is an impressive store of informational materials in teacher education, little can be found which is based on organized theory. If teaching is to rise above the level of a craft, teachers must be able to respond other than through dependence on trial and error, common sense, and the practical. Theoretical knowledge is required for interpreting and solving problems.

Concepts provide the basic elements of theoretical knowledge. Concept acquisition is a sine qua non for the exercise of expertise in any learned profession. Therefore, the preparation of the professional should provide sufficient attention to concepts crucial to the nature of the profession.

The need for placing fundamental concepts at the center of teacher education programs was emphasized in the book Teachers for the Real World

(Smith, 1968). The author called for the development of protocol materials to illustrate key concepts drawn from psychology, sociology, and philosophy which would reproduce behaviors in life-like situations. In this connection Smith differentiated between protocol materials and training materials. While the former deal with theoretical or conceptual elements, the latter address methodological or skill components.

Organized effort to develop protocol materials for teacher education began the summer of 1970 with the support of ten projects by the Bureau of Educational Personnel Development, a division of the United States Office of Education. (Later the BEPD became the National Center for the Improvement of Educational Systems.) General, technical, and organizational assistance to project directors was provided by a funded Leadership Training Institute chaired by B. Othanel Smith and Donald E. Orlosky. This LTI is located at the University of South Florida.

Since 1970, some projects have expired and new ones have been funded. For any given year an average of approximately 12 projects have been active. Likewise, there has been a minimal amount of turnover in the LTI, with an average membership of 15 (Orlosky, p.2).

By January, 1974, approximately 140 protocol products have been developed as part of the Protocol Materials Project. With the support of the NCIES approximately nine training materials have been produced under the auspices of the National Center for the Development of Training Materials in Teacher Education at Indiana University. This difference in production of protocol and training materials is explained by the existence of the previously mentioned multiple funded protocol material project sites since 1970, in contrast to the single training materials site at Indiana University.

STATEMENT OF THE PROBLEM

The primary purpose of this report is to summarize evidence of the effectiveness of protocol materials in the improvement of teaching. A secondary objective is to place this evaluation in the context of a brief review of protocol materials as an educational innovation including also its genesis, purpose, problems, and recommendations for the future.

Before summarizing evaluation results it should be pointed out that the greatest proportion of funds and energies have been directed at training personnel in the development of protocol materials rather than the evaluation of this effort.

LIMITATIONS OF PAST EVALUATIONS

Even though Protocol Materials Project Directors have attempted to field test and field trial their products before distribution, relatively little attention has been devoted to large-scale evaluation, dissemination, and preparation of trainers of preservice and inservice teachers for using the materials.

Several explanations account for the relative neglect to these essential considerations. Foremost is the fact that projects are funded for a brief term, generally one year. This shortage of time forces project directors to concentrate on developing materials to the neglect of those other elements which come after production, e.g., try-out, evaluation, training and dissemination.

Secondly, the resources required for executing those phases are not

always available to protocol producers. Furthermore, too much attention to them by producers might dilute their creative energies.

METHODS OF ANALYSIS

In reviewing evaluation 73 pieces of evidence were perused, inventoried, and classified (See Appendix A). These items emanated from 12 protocol locations. They included professional articles, manuscripts of addresses, summaries of studies, project reports, letters and instruments for collecting data. The investigation was limited in his review to material in his possession at the time of the study. Probably some protocol project directors had collected evidence of the effectiveness of their products which was not available to the investigator, when this report was written.

The writer devised a matrix for classifying the kinds of evidence represented by the documents, (See Fig. 1 and Appendix A). Twenty-one of the reviewed items did not contain information directly related to instructional effectiveness. These are listed in Appendix B. Certain cells which are not applicable or which have little if any possibility of revealing evidence are blocked out in the matrix.

The most powerful evidence of the effectiveness of protocol materials would reveal changes in the behavior of students. Since protocols are designed for use in teacher training rather than for consumption by children, it is not surprising to find that to date no project has tried to gather this kind of evidence. In order to do this it would be necessary to demonstrate that children who were taught by teachers trained with protocol materials performed significantly better than those who did not have access to these materials and teacher performance is a secondary purpose of many protocols.

Further, it would be required to show that there were no other significant differences between groups of pupils, teachers, or learning settings than the isolated variable of use of the protocol materials.

A second level of evidence shows differences in teaching behavior resulting from teacher exposure to protocol materials. Obviously this, too, requires considerable effort, necessitating evidence of favorable differences in teacher performance before and after the introduction of protocols. Despite the difficulty of obtaining this information, one item of such evidence is revealed in this report.

Other types of evidence of the impact of protocols are easier to acquire. They include concept acquisition, reactions to the materials by trainees and volume of demand for protocols. The writer was able to collect these kinds of evidence.

Figure I. Protocol Evaluations: Evidence and Materials

☐ No evidence

☒ Not Applicable

[1,2] Sources listed in Appendix A

Nature of the Materials / Kinds of Evidence	1. Changed behavior of children	2. Changed on-the-job performance of trainees	3. Learning by trainees other than job performance	4. Reactions of trainees to protocols	5. Reactions of teachers of trainees to protocols	6. Volume of requests and extent of use of protocols
A. Films, Tests, diaries, etc. to measure #1		☒	☒	☒	☒	☒
B. Films, Panel judgments, ancedotal records etc. to measure #2	☒		☒	☒	☒	☒
C. Test results to measure #3	☒	☒	3,4,5,6,7,8, 9,18,19,20, 21,22,27,44, 50	☒	☒	☒
D. Questionnaires, interviews, commentaries, etc. to measure #4	☒	☒	☒	3,4,5,7,8, 9,17,18,19, 20,21,22,25, 26,27,44,50	☒	☒
E. Questionnaires, interviews, commentaries, etc. to measure #5	☒	☒	☒	☒	44	☒
F. Letters from users, lists of users, testimonials, etc.					2, 27	29,45,47
G. Professional articles, manuscripts of speeches, tapes, etc.		52	5, 49	5, 49		48
H. Summaries of studies including field tests		52	3,4,18,19, 20,21,22, 44,50	3,4,17,19, 20,21,22,25, 26,44,50	17, 44	
I. Project Reports			27 51	27,51	1, 27	46
J. Materials designed to facilitate acquisition of concepts for #2	☒		☒	☒	☒	☒
K. Materials designed to facilitate acquisition of concepts for #3 or #4	☒	☒	6, 7, 8, 9 23, 24, 28, 32	6, 7, 8, 9	☒	☒
L. Evaluative instruments			3,4,5,6,7,8, 9, 15,16,18 22,28,33,44	4,5,6,7,8,9, 10,12,14,17, 18,21,22,27, 30,32,35,37, [illegible]	11, 13, 34, 36,38,40,42, 44	

FINDINGS

Evidence of Changed Teacher Behavior. Borg and Stone (52)* selected two of six protocol modules developed at Utah State University during 1971-72--encouragement and extension--and tested their impact on the classroom behavior of 19 inservice elementary teachers of the Weber, Utah School District. These teachers had received approximately 16 hours of training over a period of two weeks. Training involved reading descriptions of the concepts, completing practice lessons, viewing protocol films, completing recognition tests, application practice lessons and application tests, and self-practice lessons using audio-tape recorders.

Specific behaviors accompanying encouragement included general praise, specific praise, and use of student ideas. Those pertaining to extension were prompting, seeking further clarification, refocusing, and redirection.

Pre and post-training audio-tapes of 20 minutes duration were made of each teacher performing in her classroom. These tapes were coded and scored by trained raters who did not know whether a particular tape was recorded prior to or after training.

Virtually no difference was found in the amount of general praise given before and after training; however, 17 of the 19 teachers increased their use of specific praise. The average use of student ideas approximately doubled.

Prompting, which is a strategy for improving pupil response to teacher questions, more than doubled following training. The average teacher also

*Numbers in this section of the report refer to those items listed in the Protocol Materials Evaluation Exhibit Inventory (See Appendix A).

nearly doubled the use of further clarification.

Refocusing is an attempt to enable the student to generalize his knowledge through questioning which locates common elements drawn from diverse subjects. It is a relatively uncommon teaching technique. Eleven of the 19 subjects showed gains on this variable.

There was no significant change in the use of redirection, a strategy employed to increase the number of discussion participants. This variable was found to be a common teaching behavior at the pre-training level.

Evidence of Concept Acquisition. Considerably more data have been collected on the effectiveness of protocols in imparting concepts.

Utah State University tested six protocol modules dealing with important concepts related to teacher language (49,50,51). These included extension, encouragement, clarity, emphasis, feedback, and organization. A criterion level calling for 80 percent mastery by 80 percent of the subjects for each module was established. Three criteria were selected for evaluating each module: (1) recognition of teacher use of the concept on film, (2) recognition of teacher use of the concept in typed manuscripts of class discussions, and (3) application of the concept to typed transcripts of classroom discussion lessons. On the final field test more than 80 percent of the learners reached the criterion level of mastery on all 18 of the criterion measures used to evaluate the six modules.

Protocol films and guides at Michigan State University have been published on the "Tasks of Teaching." These are composed of assessment, goal setting, strategies, and evaluation.

The protocol materials were evaluated by using 429 Michigan State University undergraduate education majors (20). These were randomly divided into an experimental group of 215 subjects and a control group of 214. The

experimental group received instruction using the protocols while students in the control group received parallel instruction without the use of these materials.

Two measures of concept acquisition were selected, one of concept recall and the other, a measure of the ability to identify the concepts as part of a teaching vignette. The results showed the clear superiority in concept growth of the experimental group.

Michigan State University also has been involved in the development of protocol materials, including filmed and written aids, for respondent learning. Concept acquisition and transfer of the concept to a simulated teaching situation were tested using more than 600 Michigan State University education majors (22). Six different treatment conditions were established in the experiment. The results produced strong evidence of the effectiveness of protocol materials on concept acquisition and its transfer.

Four video-tape protocols at Far West Laboratory for Educational Research and Development were designed to aid in interpreting group process in the classroom. Acquisition tests were administered on three of the protocols: task roles, unifying roles, and anti-group roles to instructed and noninstructed groups (4, 5). The results showed the ability of the protocols to teach concepts. Differences in concept attainment favored instructed groups over the noninstructed group at the .01 level. The fourth protocol, stages of group growth, was not fully evaluated in the field test.

Recently protocols were completed and field tested by the Far West Laboratory on using student ideas, questioning, praise and corrective feedback, and lesson organization (6, 7, 8, 9). Although different

measurement techniques were employed to field test concept attainment for each of the four protocols, early positive results of the effectiveness of the protocol materials were attained.

Indiana University produced four protocols on film and in writing on cognitive interaction, affective interaction, classroom management, and counseling. An early evaluation report of these materials showed that significant learning occurred from use of each of the four units (18).

Since this earlier evaluation report the Protocol Materials Project at Indiana University has developed and tested more thoroughly additional protocols on teacher-pupil interaction. Studies conducted on learning outcomes have yielded pre and post treatment data on a single group and post treatment data for comparison with results of an untrained group. Results document significant growth on the acquisition of tested concepts (19).

The findings of one doctoral study at Indiana University on the effects of protocol and training materials on concept acquisition and skill acquisition on teacher trainees (19) suggest "that either materials expressly designed as protocol materials or materials expressly designed as training materials lead to the acquisition of both interpretive concepts and teaching skills. The finding that viewing protocol films instancing concepts about teaching behavior leads to a demonstrable acquisition of those behaviors (as well as the acquisition of concepts about those behaviors) should be of interest to future investigators."

Protocol materials developed at Southern Illinois University at Edwardsville were in audio tape and printed form and dealt with morphological and syntactic features of Black Dialect. These materials were field tested in several states using both education majors at the preservice level and

inservice teachers (27).

Twelve concept acquisition tests were administered on various concepts related to the linguistic content. The criterion level of 80 percent mastery by 80 percent of the subjects was satisfactorily achieved on each of the 12 tests.

Evidence of Reaction to the Materials. Many Protocol Materials Project Directors designed methods for measuring the attitude of trainees to protocol materials. A smaller number also designed instruments to ascertain the attitude of teachers of trainees to protocols.

User reactions to protocols fall into two broad categories: (1) impressions about the technical quality of the protocol, e.g., sound quality of a film and (2) value judgments about the usefulness of the content for improving teaching. Rating scales was the most common instrument employed to collect both kinds of information.

Summaries of student reactions to the technical quality of the protocol can be obtained from perusing Utah State University (51), Michigan State University (20,21), Indiana University (17,19) and Southern Illinois University (27).

Summaries of student reactions to the relevancy of the protocol to teaching can be obtained from Utah State University (51), Michigan State University (20,21,22), Far West Regional Laboratory (5,6,7,8,9). Indiana University (17,19), and Southern Illinois University (27).

Instructor reactions were gathered at Indiana University (17) and Southern Illinois University (27). Six instructors from several institutions tried out Indiana University protocols and gave positive responses to their quality, appropriateness of content, and utility in promoting intended concepts.

Evaluation by eight specialists in such fields as speech, linguistics, and anthropology of the Southern Illinois University audio tapes in Black Dialect appear in narrative form (27).

Evidence of Demand for the Materials. The Protocol Materials Project Director at the University of Colorado is giving considerable attention to the subject of dissemination of protocols produced at that institution. The decision to publish and disseminate University of Colorado protocol materials was made in April, 1973. A total of 10,000 brochures describing the materials was printed. The first mailings were sent out on May 1, 1973 (46).

By November 15, 1973, more than 300 requests had been received for previewing, renting, purchasing, or for further information about the materials (45, 48).

SUMMARY OF THE FINDINGS AND RECOMMENDATIONS

A review of research on the effectiveness of protocol materials to improve teaching and learning shows that no attempt has been made as yet to discover the influence, if any, on the behavior of pupils. One study reveals the effect of protocols on favorable changes of teaching behavior. Positive results have been obtained on the acquisition of concepts by preservice and inservice teachers. Likewise, there is evidence of the reactions of both trainees and their teachers to the technical qualities and relevance of protocol materials. While little attention has been directed to dissemination, there is a growing evidence of demand for protocol materials by preservice and inservice educators.

The following recommendations pertain to future evaluations of protocol materials:

1. As theory is related to practice, so are concepts related to skills. Concerted attention should be given to identifying and searching for relationships between instructional concepts and skills which influence teaching and learning. The work of Bryce Hudgins in cataloging concepts and Richard Turner in cataloging skills should be supported as an important contribution to this work.

2. Protocol and training products are essential instructional materials for preservice and inservice competency based teacher education programs. In view of the national transition to competency based teacher education, financial support is needed to assist the development of these materials.

3. Ultimately the question of whether or not protocol and training materials used in competency based teacher education programs make any difference to pupil performance should be researched. This question cannot be answered finally and fairly, however, until materials have been developed which exemplify the full range of essential concepts and skills, until teacher educators have been trained properly in their use, and until trainees have completed competency based programs which have relied on these tools.

4. In the meantime, the field testing and consequent revision of new protocol materials should be encouraged. While the collecting of user reactions to the materials serves as a legitimate purpose, it cannot take the place of tests of concept attainmant. These should be conducted as realistically as possible. Audio and video taped evidence of trainee learning, when feasible, should be superior to paper and pencil tests.

Likewise, information gathered from responding to filmed testing should be a more accurate indicator of conceptual power than information collected from a written simulation.

REFERENCES

Gliessman, David, "What Are Protocols: Their Nature and Purpose?" in Handbook on the Development and Use of Protocol Materials for Teacher Education, Chipley, Florida: Panhandle Area Educational Cooperative, 1973.

Orlosky, Donald E., "Overview," in Handbook on the Development and Use of Protocol Materials for Teacher Education, Chipley, Florida: Panhandle Area Educational Cooperative, 1973.

Smith, B. Othanel, Teachers for the Real World, Washington, D. C.: American Association of Colleges for Teacher Education, 1968.

APPENDIX A

Appendix A

Protocol Materials Evaluation Exhibit
Inventory

Sources	Number	Classification	Title
Bucknell University	1	5I	Protocols in Developmental Reading: May, 1970, September, 1973
California State University at Northridge	2	5F	Letter to John Cooper, Dec.12, 1973
Far West Laboratory	3	3C, 3H, 3L 4D, 4H	Protocols on Group Process, Instructor's Manual
"	4	3C, 3H, 3L 4D, 4H, 4L	Learning Concepts about Group Process: An Evaluation of Protocol Materials
"	5	3C, 3G, 3L 4D, 4G, 4L	The Group Process Protocols: The 1971-72 Protocol Project Report for AERA Meeting Feb. 25--Mar. 2, 1973
"	6	3C, 3K, 3L 4D, 4K, 4L	Lesson Organization: Protocol Materials for Teachers, 1973
"	7	3C, 3K, 3L 4D, 4K, 4L	Praise and Corrective Feedback: Protocol Materials for Teachers, 1973
"	8	3C, 3K, 3L 4D, 4K, 4L	Questioning: Protocol Materials for Teachers, 1973
"	9	3C, 3K, 3L 4D, 4K, 4L	Using Student Ideas: Protocol Materials for Teachers, 1973
Florida Department of Education	10	4L	Student Analysis Form for Field Trial Evaluation of Protocol Materials for Teacher Education
"	11	5L	Analysis Form for Instruction and Specialists for Field Trial Evaluation of Protocol Materials for Teacher Education

Source	Number	Classification	Title
Florida Department of Education	12	4L	Trainee Analysis Form for Protocol Materials for Teacher Education
Indiana University	13	5L	Instructor's Evaluation Form: Concepts and Patterns in Teacher-Pupil Interaction
"	14	4L	Student's Evaluation Form: Concepts and Patterns in Teacher-Pupil Interaction
"	15	3L	Inventory IC (Revision 5/17/7
"	16	3L	Inventory D, Part I, (Revision 9/17/73)
"	17	4D, 4H, 4L 5H	Reaction to Protocol Material: A Survey of Students and Faculty Users
"	18	3C, 3H, 3L 4D, 4H, 4L	A Preliminary Evaluation Report on the Development and Use of Filmed Protocol Materials within two Instructional Strategies
"	19	3C, 3H 4D, 4H	An Evaluation Summary and Dissertation Abstract on the Effectiveness of Protocol Materials
Michigan State University	20	3C, 3H 4D, 4H	Experimental and Field Evaluation of Protocol Materials Developed to Teach "Tasks of Teaching" Concepts. Report #2
"	21	3C, 3H 4D, 4H, 4L	University of South Florida Field Test of the Michigan State University Protocol Materials on Learning, Jan., 1973
"	22	3C, 3H, 3L 4D, 4H, 4L	MSU Research and Evaluation Report #1, May, 1972
"	23	3K	Carrel Lesson One: The Tasks of Teaching

Source	Number	Classification	Title
Michigan State University	24	3K	Education 200, Unit IV, Teaching Task #3: The Process of Strategy Selectio:
Ohio State University	25	4D, 4H	A Protocol Materials Evaluation: The Language of Children
"	26	4D, 4H	Field Trial Report: The Language of Children
Southern Illinois University	27	3C, 3I 4D, 4I, 4L 5F, 5I	Final Report: Protocol Materials Development Project, S.I.U. at Edwardsville
"	28	3K, 3L	Identifying the Morphological and Syntactic Features of Black Dialect
"	29	6F	Telephone conversation with Theresa Love, Protocol Materials Project Director, S.I.U., January 2, 1974
SUNY at Buffalo	30	4L	Field Test Evaluation Forms, Fredonia, N.Y.
Teaching Research	31	4L, 5L	Protocol Materials for Teacher Education, Learner Outcomes, Field Trial Evaluation Guide, March, 1971
"	32	3K, 4L	Untitled (Important Definition)
University of Colorado	33	3L	Student Background Information and Questionnaires for Concepts About Teaching
"	34	5L	Instructor Evaluation Questionnaire for Conceptualizing the Process of Instruction
"	35	4L	Student Evaluation Questionnaire for Conceptualizing the Process of Instruction
"	36	5L	Instructor Evaluation-Questionnaire for Learners and their Characteristics

Source	Number	Classification	Title
University of Colorado	37	4L	Student Evaluation Questionnaire for Learners and their Characteristics
"	38	5L	Instructor Evaluation Questionnaire for Verbal Interaction in the Cognitive Dimension
"	39	4L	Student Evaluation Questionnaire for Verbal Interaction in the Cognitive Dimension
"	40	5L	Instructor Evaluation Questionnaire for Organizing Fac' To Teach Meaningful Relationships
"	41	4L	Student Evaluation Questionnaire for Organizing Facts to Teach Meaningful Relationships
"	42	5L	Instructor Evaluation Questionnaire for Fair Verbal Behavior
"	43	4L	Student Evaluation Questionnaire for Fair Verbal Behavior
"	44	3C, 3H, 3L 4D, 4H, 4L 5E, 5H, 5L	Evaluation Report of the 197 1970-72 Protocol Materials Units Developed by the Project Materials Development Project, University of Colorado
"	45	6F	Dissemination Report: List of persons ordering materials for preview, rental or sale, August 1--November 15, 1973
"	46	6I	The Dissemination of Protocol Materials: One Project's Answer
"	47	6F	Letters from Users of University of Colorado Protocol Materials

Source	Number	Classification	Title
University of Colorado	48	6G	The University of Colorado Protocol Project: A Case Study
Utah State University	49	3G, 4G,	Protocols: Competency Base Teacher Education Modules, by W. Borg from Ed. Tech. V. 12, #10, Oct., 1973
"	50	3C, 3H 4D, 4H	Field Testing and Evaluation in the Utah State University Protocol Project
"	51	3C, 3I 4D, 4I, 4L	The USU Protocol Project: Final Report, 1971-72
"	52	2G, 2H	"What are Protocol Materials?"

APPENDIX B

Appendix B

Materials Reviewed but not Applicable to the Study

Source	Number	Title
Far West Laboratory	53	Introduction to Protocols
"	54	Field Test: Protocol Materials on Group Process
Florida Department of Education	55	Florida Protocol Materials Project, Sept. 19, 20, 21, 22
"	56	(Untitled paper) Review of 1971-72 Activities and a Summary of 1972-73 Activities
"	57	Memo: Subject: Agenda Item for LTI and Directors Meeting in Tampa, January 23-25, '73
"	58	Protocol Materials Review Inventory
"	59	Protocol Materials Review Inventory and Written Materials Form
Indiana University	60	Concepts and Patterns in Teacher-Pupil Interaction: Categorizing Classroom Behavior Filmed Version
"	61	Categorizing Teacher Behavior, Part 1
Michigan State University	62	Protocol Materials Evaluation Plan for Michigan State University, 1973-74
Southern Illinois University	63	Protocol Materials Development Project: Notes for Instructors
SUNY at Buffalo	64	Project in Ethnography in Education
"	65	Project in Ethnography in Education Training Materials: A Description
"	66	Some Specifics on Field Testing and Training Activities
Teaching Research	67	Progress Report, March 21, 1973
"	68	Protocol Materials for Teacher Education: Learner Outcomes User's Guide, April, 1971

Source	Number	Title
University of Colorado	69	Progress Report: Development of Protocols on Social Science Concepts and Proposed Design for Testing and Evaluation of the 1973 Products
"	70	Field Testing, Evaluation, Revision and Dissemination of Protocol Materials Produced During 1970-72 by the Protocol Materials Development Project, University of Colorado
"	71	Protocol Materials Development Project: A Summary Report, 1970-1973
"	72	Instructor Background Information
"	73	Protocol Materials Development Project: A Summary Report 1970-1972